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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,249	04/11/2001	Robert Hundt	10005460-1	3717

7590 05/05/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

INGBERG, TODD D

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 05/05/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,249

Applicant(s)

HUNDT ET AL.

Examiner

Todd Ingberg

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 13-15 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 16-27 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2124

DETAILED ACTION

Claims 1 – 10, 13-27 are present

Claims 11 and 12 have been canceled.

Claims 1 and 15 have been amended.

Claims 16 – 27 are restricted by original presentation.

Claims 1 – 10, 13 – 15 are allowable.

Allowable Subject Matter

1. Claims 1 – 10, 13 – 15 are allowed.

Reasons For Allowance

2. The Benitez reference USPN 6,189,141 teaches the instrumentation of code. Although, Benitez columns 9 through 10 cover the well known use of entry points to basic blocks. The beginning of the JMP to the block is where the counter is placed. Basic blocks which have a high rate of execution are deemed HOT Blocks. It is grossly well known that instrumentation is used for program optimization. In Benitez the original blocks are maintained and instrumented blocks are created. This is reflected in Figure 8 where the address to the original block and instrumented blocks are kept in the Look-Up Table. This brings up the Applicant's comment that somehow Applicant believes there is a difference between a procedure lookup table and a program lookup table. This statement seems to be word matching and not concept matching. Applicant did not make a technical distinction. Examiner would have found any technical difference very interesting if it advances the technical arts in compiler theory (the basis for art units 2122 and 2124).

Art Unit: 2124

In Benitez no matter how short a block might be from a few lines of code to a stub it is still called. The claimed invention once a block is determined to be a stub the Look-Up Table (regardless of it's naming scheme) is altered not to perform the JMP (also called a branch) to the stub function but instead not call it an fall through the control path as determined by the Look-Up Table.

As for Applicant's statement about a " ... *symbol table* and *program lookup table* , these are not thought to be inherent parts of a compiler because the meaning of "part of" is not clear." For the record to compile (and link) or interpret a program to produce an executable. It is inherent to have a symbol table and a program lookup table. Prior to challenging this the Applicant might want to look at an introduction to compiler theory book such as *Compilers Principles, Techniques and Tools*", by Alfred Aho et al. (published September 12, 1985 and considered basic knowledge on would have to know to how reduced to practice the instant application). Then apply the denial test. If an executable does not have a symbol table OR a program lookup table how would it work? As with the Applicant's two statements above, any statement will be part of the permanent written record.

Restrictions by Original Presentation

3. New claims 16 – 27 are restricted by original presentation. The original claims had nothing to do with searching in the executable program code for checkpoint description data. Although the entry and exit points were present in the original claims the claimed invention had nothing to do with performing checkpointing.

Art Unit: 2124

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Todd Ingberg** whose telephone number is (703) 305-9775. The examiner can normally be reached during the following hours:

Monday	Tuesday	Wednesday	Thursday	Friday
6:15 – 1:30	6:15- 3:45	6:15 – 4:45	6:15-3:45	6:15-130

This schedule began December 1, 2003 and is subject to change.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kakali Chaki** can be reached on (703) 305-9662. Please, note that as of August 4,

Art Unit: 2124

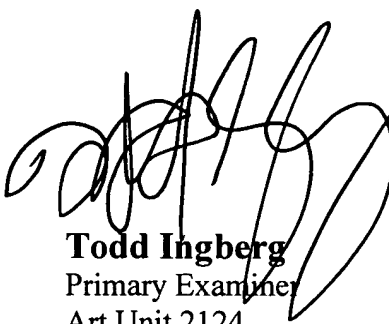
2003 the **FAX number** changed for the organization where this application or proceeding is assigned is **(703) 872-9306**.

Also, be advised the United States Patent Office **new address** is

Post Office Box 1450

Alexandria, Virginia 22313-1450

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9700.



Todd Ingberg
Primary Examiner
Art Unit 2124
May 1, 2004